



Monthly Wholesale Trade

Sales and Inventories

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

May 1997
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Sales. May 1997 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were \$210.4 billion, up 0.2 percent (+/-1.0%) from the revised April level and 5.1 percent (+/-1.7%) above May 1996. The April preliminary estimate was revised downward by \$0.3 billion or 0.1 percent. Among durable goods, sales of furniture and home furnishings were down 3.3 percent to \$3.4 billion from last month, while metals and minerals, except petroleum, were down 2.2 percent to \$8.5 billion. Sales of nondurable goods were up 1.0 percent (+/-1.2%) from April and were 5.9 percent (+/-2.3%) higher than May 1996. Compared to last month, sales of beer, wine, and distilled alcoholic beverages were up 4.2 percent to \$4.8 billion and drugs, drug proprietaries and druggists' sundries rose 3.1 percent to \$9.9 billion.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$258.7 billion at the end of May, up 0.2 percent

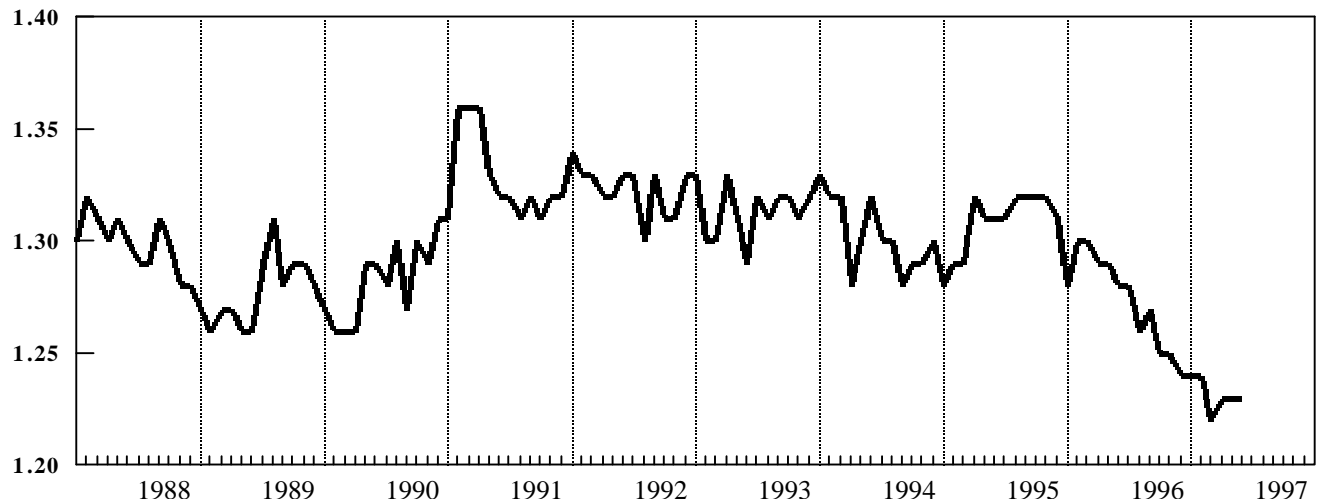
(+/-0.7%) from the revised April level and 0.8 percent (+/-2.2%) above May 1996. The April preliminary estimate was revised upward by \$0.4 billion or 0.2 percent. Among durable goods, inventories of lumber and other construction materials were up 1.8 percent from last month to \$8.1 billion, while machinery, equipment and supplies increased 1.6 percent to \$37.6 billion. Among nondurable goods, inventories of farm-product raw materials declined 6.1 percent to \$8.8 billion and beer, wine, and distilled alcoholic beverages fell 4.2 percent to \$4.7 billion.

Inventories/Sales Ratio. The May inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.23. The May 1996 ratio was 1.28.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997

(Data adjusted for seasonal, and trading-day differences, but not for price changes)



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Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svds/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1997 and 1996

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change					
		May 1997 (P)	Apr. 1997 (r)	May 1996 (r)	May/ Apr.	Apr./ Mar.	May 97 May 96	May 1997 (P)	Apr. 1997 (r)	May 1996 (r)	May/ Apr.	Apr./ Mar.	May 97 May 96	May 1997 (P)	Apr. 1997 (r)	May 1996 (r)
Adjusted ²																
	U.S. Total	210,354	209,926	200,079	0.2	-0.1	5.1	258,680	258,046	256,740	0.2	-0.5	0.8	1.23	1.23	1.28
50	Durable	108,173	108,748	103,580	-0.5	1.4	4.4	165,243	164,448	160,921	0.5	0.2	2.7	1.53	1.51	1.55
501	Automotive	18,117	17,942	17,136	1.0	-1.8	5.7	26,847	26,422	27,164	1.6	-2.4	-1.2	1.48	1.47	1.59
502	Furniture	3,439	3,557	3,674	-3.3	-1.1	-6.4	5,227	5,212	5,163	0.3	5.4	1.2	1.52	1.47	1.41
503	Lumber	7,374	7,555	7,114	-2.4	3.3	3.7	8,141	8,000	7,519	1.8	3.3	8.3	1.10	1.06	1.06
504	Prof. equip.	20,866	21,090	19,481	-1.1	2.4	7.1	22,701	22,705	22,270	0.0	2.2	1.9	1.09	1.08	1.14
505	Metals	8,538	8,728	8,327	-2.2	3.7	2.5	13,616	13,535	12,354	0.6	1.2	10.2	1.59	1.55	1.48
506	Electrical	14,956	14,754	14,266	1.4	0.1	4.8	23,761	23,622	24,140	0.6	-1.5	-1.6	1.59	1.60	1.69
507	Hardware	6,451	6,444	5,759	0.1	3.5	12.0	12,354	12,400	11,405	-0.4	3.5	8.3	1.92	1.92	1.98
508	Machinery	15,990	16,034	15,582	-0.3	4.0	2.6	37,551	36,948	35,186	1.6	1.3	6.7	2.35	2.30	2.26
509	Other Durable	12,442	12,644	12,241	-1.6	0.2	1.6	15,045	15,604	15,720	-3.6	-4.2	-4.3	1.21	1.23	1.28
51	Nondurable	102,181	101,178	96,499	1.0	-1.8	5.9	93,437	93,598	95,819	-0.2	-1.8	-2.5	0.91	0.93	0.99
511	Paper	7,358	7,491	6,823	-1.8	0.7	7.8	9,032	8,758	8,376	3.1	-1.0	7.8	1.23	1.17	1.23
512	Drugs	9,913	9,618	8,382	3.1	0.1	18.3	14,028	13,804	12,414	1.6	-2.7	13.0	1.42	1.44	1.48
513	Apparel	7,443	7,526	6,206	-1.1	3.3	19.9	12,365	12,297	12,012	0.6	1.1	2.9	1.66	1.63	1.94
514	Groceries	27,615	27,386	25,951	0.8	-2.5	6.4	17,503	17,306	17,632	1.1	-2.1	-0.7	0.63	0.63	0.68
515	Farm-products	9,660	9,715	10,134	-0.6	4.9	-4.7	8,765	9,336	12,918	-6.1	-0.6	-32.1	0.91	0.96	1.27
516	Chemicals	4,518	4,570	4,495	-1.1	0.9	0.5	4,596	4,670	4,499	-1.6	-1.4	2.2	1.02	1.02	1.00
517	Petroleum	14,491	14,460	14,510	0.2	-8.7	-0.1	5,226	5,177	4,913	0.9	-1.7	6.4	0.36	0.36	0.34
518	Alcohol	4,816	4,624	4,739	4.2	-4.2	1.6	4,679	4,883	4,915	-4.2	-1.7	-4.8	0.97	1.06	1.04
519	Other Nondur.	16,367	15,788	15,259	3.7	-2.1	7.3	17,243	17,367	18,140	-0.7	-3.9	-4.9	1.05	1.10	1.19
Not Adjusted														Sales to date		
	U.S. Total	213,365	211,000	207,431	1.1	-1.0	2.9	257,826	260,244	255,346	-0.9	-0.1	1.0	1,030,078	982,067	
50	Durable	108,539	108,618	105,911	-0.1	-0.9	2.5	166,643	165,786	162,273	0.5	1.1	2.7	523,421	503,604	
501	Automotive	18,969	18,821	18,078	0.8	-2.8	4.9	27,303	26,950	27,599	1.3	-1.7	-1.1	90,130	88,281	
502	Furniture	3,480	3,582	3,814	-2.8	0.3	-8.8	5,264	5,113	5,204	3.0	3.6	1.2	17,315	17,235	
503	Lumber	7,802	7,751	7,719	0.7	10.1	1.1	8,320	8,208	7,684	1.4	1.4	8.3	35,264	32,998	
504	Prof. equip.	20,136	20,162	19,052	-0.1	-6.0	5.7	22,474	22,841	22,070	-1.6	2.9	1.8	100,004	90,760	
505	Metals	8,820	9,199	8,835	-4.1	6.5	-0.2	13,589	13,630	12,329	-0.3	1.0	10.2	43,422	41,676	
506	Electrical	14,477	14,208	14,123	1.9	-5.2	2.5	23,880	23,480	24,261	1.7	0.3	-1.6	70,561	70,954	
507	Hardware	6,425	6,373	5,874	0.8	9.8	9.4	12,601	12,524	11,633	0.6	3.5	8.3	29,446	27,104	
508	Machinery	16,598	16,675	16,408	-0.5	2.2	1.2	38,077	37,576	35,679	1.3	2.2	6.7	79,076	79,328	
509	Other Durable	11,832	11,847	12,008	-0.1	-4.7	-1.5	15,135	15,464	15,814	-2.1	-1.2	-4.3	58,203	55,268	
51	Nondurable	104,826	102,382	101,520	2.4	-1.1	3.3	91,183	94,458	93,073	-3.5	-2.0	-2.0	506,657	478,463	
511	Paper	7,145	7,431	6,837	-3.8	0.9	4.5	8,951	8,907	8,284	0.5	0.2	8.1	36,516	33,763	
512	Drugs	9,576	9,801	8,441	-2.3	4.1	13.4	13,327	13,804	11,781	-3.5	-2.4	13.1	47,183	41,627	
513	Apparel	6,230	7,112	5,393	-12.4	-6.7	15.5	11,969	11,842	11,628	1.1	0.4	2.9	35,333	28,565	
514	Groceries	28,692	26,975	27,274	6.4	-4.6	5.2	17,223	17,046	17,368	1.0	-1.7	-0.8	135,191	129,265	
515	Farm-products	9,660	9,725	10,539	-0.7	1.6	-8.3	7,564	9,551	11,174	-20.8	-8.9	-32.3	49,725	54,783	
516	Chemicals	4,803	4,798	4,922	0.1	4.1	-2.4	4,651	4,735	4,562	-1.8	-2.0	2.0	22,947	22,203	
517	Petroleum	15,027	14,547	15,323	3.3	-6.0	-1.9	5,268	5,053	4,933	4.3	-0.4	6.8	77,872	71,184	
518	Alcohol	5,182	4,610	5,274	12.4	4.0	-1.7	4,590	4,903	4,822	-6.4	0.8	-4.8	21,779	22,096	
519	Other Nondur.	18,511	17,383	17,517	6.5	3.8	5.7	17,640	18,617	18,521	-5.2	-2.0	-4.8	80,111	74,977	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

*Combined Annual and Revised Monthly Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous year
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	CY	PY	cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.1	1.4	1.0	1.4	0.4	0.3	1.0	1.6	1.1	0.8	0.8
50	Durable	2.0	2.3	2.0	2.3	0.7	0.3	1.7	2.3	2.1	1.2	1.5
501	Automotive	4.0	3.9	3.6	3.8	1.3	1.0	3.8	3.9	3.9	2.9	3.4
502	Furniture	5.4	7.1	5.4	7.0	2.2	0.9	4.1	10.8	4.9	4.1	3.8
503	Lumber	5.2	5.2	5.2	5.1	1.5	0.9	5.6	5.5	5.3	2.2	5.4
504	Prof. equip.	5.7	7.2	5.8	7.3	1.4	0.9	5.8	5.5	5.6	3.1	4.6
505	Metals	4.5	8.7	4.7	8.4	1.3	0.7	2.8	9.5	4.6	3.7	2.2
506	Electrical	4.6	4.3	4.3	4.3	1.2	0.5	3.0	2.9	4.5	3.0	3.1
507	Hardware	4.8	4.1	4.9	4.0	1.6	0.5	6.4	4.4	4.4	2.6	5.6
508	Machinery	5.1	4.4	5.5	4.5	1.8	0.6	4.6	5.2	5.5	2.3	5.0
509	Other Durable	4.4	6.4	4.2	6.4	1.8	0.9	2.9	6.0	4.1	3.4	2.1
51	Nondurable	1.8	1.9	1.7	1.8	0.6	0.4	1.5	1.2	1.7	1.3	1.3
511	Paper	3.2	3.7	3.4	3.9	1.0	0.4	2.9	4.0	3.2	3.5	2.9
512	Drugs	5.4	5.1	5.5	5.2	0.4	0.3	3.2	2.2	5.5	5.0	3.2
513	Apparel	4.7	7.5	4.9	7.8	2.3	0.8	4.9	5.3	4.5	3.0	3.7
514	Groceries	3.2	4.7	3.1	4.8	0.8	0.6	2.1	5.0	3.0	2.7	1.9
515	Farm-products	5.0	6.6	4.9	6.7	2.3	1.4	3.0	3.5	4.6	3.6	2.1
516	Chemicals	5.4	5.9	5.5	5.8	1.6	0.5	4.5	4.5	5.7	2.8	4.0
517	Petroleum	5.2	13.9	5.0	13.7	1.0	1.0	3.1	13.3	5.3	4.2	3.1
518	Alcohol	6.4	5.9	6.3	6.1	1.6	1.2	8.3	6.5	6.5	5.1	8.4
519	Other Nondur.	5.8	5.7	5.8	5.7	2.6	1.4	7.2	5.4	5.4	1.9	6.5

Note: The median measures of variability are based on the most recent 6 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to $+2.7\%$. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of business	Sales					Inventories						
		1997					1996	1997					1996
		Jun.	May	Apr.r	Mar.	Feb.	May r	Jun.	May	Apr.r	Mar.	Feb.	May r
	U.S. Total¹	1.006	1.017	1.007	1.012	0.914	1.037	0.984	0.996	1.009	1.004	1.013	0.996
50	Durable	1.014	1.001	1.002	1.023	0.905	1.024	0.997	1.007	1.009	0.999	1.003	1.007
501	Automotive	0.998	1.047	1.049	1.060	0.908	1.055	0.980	1.017	1.020	1.012	1.041	1.016
502	Furniture	0.986	1.012	1.007	0.993	0.891	1.038	1.017	1.007	0.981	0.998	0.979	1.008
503	Lumber	1.061	1.058	1.026	0.963	0.841	1.085	1.021	1.022	1.026	1.045	1.021	1.022
504	Prof. equip.	1.002	0.965	0.956	1.042	0.913	0.978	0.983	0.990	1.006	0.999	0.990	0.991
505	Metals	1.026	1.033	1.054	1.027	0.945	1.061	1.010	0.998	1.007	1.009	0.990	0.998
506	Electrical	0.998	0.968	0.963	1.016	0.912	0.990	1.009	1.005	0.994	0.976	0.998	1.005
507	Hardw are	1.061	0.996	0.989	0.932	0.861	1.020	0.996	1.020	1.010	1.010	0.996	1.020
508	Machinery	1.029	1.038	1.040	1.058	0.920	1.053	0.998	1.014	1.017	1.008	1.003	1.014
509	Other Durable	1.005	0.951	0.937	0.985	0.886	0.981	0.999	1.006	0.991	0.961	0.968	1.006
51	Nondurable	1.000	1.028	1.013	1.004	0.922	1.048	0.962	0.974	1.012	1.016	1.031	0.974
511	Paper	0.988	0.971	0.992	0.990	0.936	1.002	0.984	0.991	1.017	1.004	1.002	0.989
512	Drugs	0.969	0.966	1.019	0.980	0.919	1.007	0.961	0.950	1.000	0.997	1.017	0.949
513	Apparel	0.993	0.837	0.945	1.047	0.990	0.869	1.016	0.968	0.963	0.970	1.012	0.968
514	Groceries	0.996	1.039	0.985	1.007	0.901	1.051	0.990	0.984	0.985	0.981	0.969	0.985
515	Farm-products	0.928	1.000	1.001	1.033	0.978	1.040	0.787	0.863	1.023	1.116	1.228	0.865
516	Chemicals	1.045	1.063	1.050	1.018	0.941	1.095	1.008	1.012	1.014	1.020	1.019	1.014
517	Petroleum	0.959	1.037	1.006	0.977	0.944	1.056	0.973	1.008	0.976	0.963	0.968	1.004
518	Alcohol	1.074	1.076	0.997	0.918	0.808	1.113	0.989	0.981	1.004	0.979	0.954	0.981
519	Other Nondur.	1.088	1.131	1.101	1.038	0.894	1.148	0.975	1.023	1.072	1.052	1.052	1.021

r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.

